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ABSTRACT

The paper reviews the history in the United States of spelling instruction, noting the multisensory approach advocated in Colonial times, the advent of the whole-word method in the 1840's, and more recent controversies, such as the one engendered by the generalization approach. Factors involved in spelling disabilities are cited. Analysis of current spelling performance for Individualized Education Programs focuses on four skills: (1) readiness for formal spelling instruction, (2) general spelling level, (3) types of spelling errors, and (4) abilities to proofread, use phonics, and use the dictionary. Intervention methods supported by the research are cited, including the test-study-test method, self-correction, and spelling games. Additional suggestions for helping students with their spelling include weekly instruction, peer tutors, and parent involvement. A five-page bibliography is included. (CL)

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TEACHING SPELLING TO THE LEARNING DISABLED USING TRADITIONAL AND REMEDIAL APPROACHES: A WORKSHOP

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ABSTRACT

A traditional element of the elementary school curriculum is the teaching of spelling. Spelling is crucial in helping an individual to express his/her thoughts in writing. Since poor spellers cannot do this well, they are affected educationally, socially and, ultimately occupationally.

The research points to many reasons for unsatisfactory progress in spelling, such as, inadequate or inaccurate teaching/learning strategies, poorly designed instructional materials (commercial or teacher-prepared), lack of well designed curricula, and handicapping conditions, such as learning disabilities.

This workshop will review current research on and practices in teaching spelling. Those procedures supported by the research (test-study-test method, synthetic approach, list/column study form, self-correcting, spelling games) will be explained. Individual and group participation in using some techniques will be planned: Fitzgerald Method, Gilstrap Method, Horn Method, Fernald Method Modified, Cover and Write Method, and Edlund's Behavior Modification Method for grades 7-12. References to other techniques will be distributed (Hill and Martinis, Phillips, Bartholome and others).

TEACHING SPELLING TO THE LEARNING DISABLED USING TRADITIONAL AND REMEDIAL APPROACHES: A WORKSHOP

How does one define "spelling?" Is it the process of encoding, or of rendering spoken words into written symbols?" (Hanna, Hodges and Hanna [1971]). Or is it the "ability to produce in written or oral form the correct letter arrangement of words" as Breuckner and Bond defined it in 1955? Is it the ability to "produce in written or oral form the correct sequence of letters that form a particular word?" This means that the writer converts the phonemes or sounds of the language into graphemes or written symbols, called letters. The formal name that is given to the system of representing spoken language in written form is orthography. The word is made up of two Greek words: ortho meaning correct and graphy meaning writing. So when teachers teach children to write or teach the orthography of English, they are teaching the system for the correct spelling of English.

But English is difficult to learn to spell. The language has an alphabet of 26 letters to represent 44 different sounds. And, there are 251 different ways to spell these different sounds. (Hull, 1976). In addition, English contains many irregularly spelled words, some of which come from the infusion of other languages. As a rule, there is only one correct way to spell a particular word with a given meaning. But English contains homonyms, words that sound alike but are spelled differently: hear, here; hair, hare; witch, which. Some words have alternate spellings that may reflect the influence of the British (Br.) mode on American spelling (Am): behaviour (Br.) behavior (Am.); judgement (Br.), judgment (Am.). The language has heteronyms too. These are words different in sound and meaning: resume, resumé; bow, bow; minute, minute. So in English, either a word is spelled correctly or it is misspelled.

A traditional element of the elementary school curriculum is the teaching of spelling. Spelling is crucial in helping an individual to express his/her

thoughts in writing. Since poor spellers cannot do this well, they are affected educationally, socially, and, ultimately, occupationally. In our society correct spelling is still linked to educational level, intelligence and culture while inaccurate spelling is linked to illiteracy, lower intelligence and cultural level.

The research points to many reasons for unsatisfactory progress in spelling, such as inadequate or inaccurate teaching/learning strategies, poorly designed instructional materials (commercial or teacher-prepared), lack of well designed curricula, and handicapping conditions, such as mental retardation, emotional disturbance, health impairments and learning disabilities.

Learning disabled children experience more problems and severer deficits in spelling than in reading. The learning disabled may use context and other clues in reading to help decode, but, when spelling, the child is unable to produce a word after hearing it, or thinking about it. Thus, teachers find that many LD children avoid writing tasks or perform them laboriously and poorly.

Most of the information about spelling difficulties is found in the studies on the types of errors made: (1) errors are phonetical, (2) errors are made in the middle of the word, (3) or are in alterations of a single phoneme. (Graham and Miller, 1979).

Average seven year olds write the most common grapheme for the phoneme they hear (Marsh, Friedman, Welch and Desberg, 1980). This is fine when words are regular, such as in the consonant-vowel-consonant format. By fifth grade, the average child learns to use some rules and to work by analogy.

Studies comparing normally achieving children with those who show reading problems (L.D.) reveal several interesting aspects. Learning disabled children spell fewer words accurately than their normal achieving peers (Carpenter and Miller, 1982). Learning disabled children do use correct phonetics in

spelling, but miss out on parts of words (Gerber and Hall, 1981). Learning disabled children produce more unrecognizable spellings of words (Carpenter, 1983; Frith, 1980).

Again, it may be that inadequate or inaccurate teaching/learning strategies, poorly designed materials, lack of well-designed curricula and little attention to individual pupil needs contribute to poor spelling achievement and progress among not only children in general, but also among learning disabled children.

The usual model is as follows. On Monday, each child receives the spelling list for the week. On Tuesday, the teacher gives the spelling pre-test. On Wednesday, each child writes sentences using the words on the list. On Thursday, the teacher teaches the rule or phonic skill in the lesson and reviews the words missed by most of the children. On Friday, the children take the final test. This is the model used in most classrooms nationwide (Rowell, 1972). This is the model found in the texts published by the commercial companies. This model presents a set pattern of instructions, little variety in teaching/learning strategies and limited teacher involvement. Also, these "teacher proof" materials and methods are inappropriate and even deter learning (Cohen, 1969). Even more disturbing is the fact that studies reveal that teachers seldom use practices in the classroom that the research supports as worthwhile and effective (Fitzsimmons and Loomer, 1977).

Is this because teachers are unaware of the results of the research? Is it that the publishers find it too expensive to revise their texts, or, is it because, as the research reveals, teachers are so influenced by habit that change is difficult?

But if children, the handicapped and the non-handicapped, are to have better spelling instruction, changes must be made, especially since there is so much research revealing several effective successful techniques. Therefore,

teachers who use the results of research findings may select alternative methods, use more varied techniques/activities and individualize teaching/learning strategies.

Among learning disabled children, spelling is an extensive problem that is difficult to correct or to remediate. It is found to be worse than the reading problems these children experience. Why is spelling harder than reading? One explanation may be that for learning disabled children spelling makes different demands upon visual memory. When reading, the child may recognize a word without knowing how to spell it. But when spelling, the child needs precise detailed sequential information to reproduce the word accurately. The difference is between recognition, memory and total recall. (Gibson and Levin, 1975). Therefore, the reader has an advantage in the redundancy of written language because he/she does not need to recognize every letter, or even every word. The speller needs to and must write down every letter of every word in the correct order. The written symbols for reading are relatively concrete and permanent, while the stimuli for spelling are speech sounds, overt or internal, and are less tangible and durable. Reading is a receptive language process and spelling is a productive language process. Developmental language specialists note that production is more difficult than reception. Research by Cronnell (1971) points to the asymmetry of phoneme-grapheme correspondence when comparing spelling to reading. Remember, there are 26 letters to represent 44 phonemes, but there are, for example, 59 spelling units when letter combinations which represent one phoneme are noted: sh, ch, tch, ea. This means that the reader reads from a set of many stimuli to fewer responses, while the speller uses a smaller set of stimuli to a larger set of responses. Examples are: f which may be spelled as f, ff, ph or gh as in enough or the the phoneme o which may be spelled o, ow, oe, oa, etc.

When decoding the reader has options in pronouncing the word, but in spelling, the speller does not know if the option chosen is correct unless he or she knows it already. How many times have you stopped in mid-word and wondered which letter or combination of letters to use?

Since there are so many reasons why spelling is more difficult than reading, it is not surprising that learning disabled children find it an almost insurmountable problem. Even more surprising is the fact that in the schools the problems of spelling do not receive the attention in terms of financial expenditure, materials, teacher-time and remediation that reading problems do. Historically, that was not so. In Colonial times, literacy training was focused on spelling because it was believed that if children learned to spell they would learn to read: "spelling and reading went hand in hand." (Hodges, 1977).

In Colonial times children learned the alphabet and then the letter combinations for 180 syllables and most of the possible two letter vowel-consonant and consonant-vowel combinations. This was done by spelling them out loud, pronouncing them and then writing them on slates - a multisensory approach! After mastery of the 2 letter syllables, the child went on to 3 letter syllables and words - mastery learning. After the child mastered these basic syllables, they were used to build words for spelling and reading. This was a process that went from the simple to the complex in terms of the number of letters and syllables in a word. Children used a standard reading and spelling primer called the "New England Primer." (Hodges, 1977; Hanna, Hodges and Hanna, 1971).

After the American Revolution the main book used in teaching was "Grammatical Institute of the English Language" published in 1783. In 1787 it was revised and retitled as "The American Spelling Book." Generations of children used it and called it "Webster's Blue Backed Speller." Its sales

reached millions of copies, nearly approaching that of the Bible. This book emphasized the primacy of spelling as the root of learning to read and was paralleled by emphasis on accuracy in oral reading.

It was in the early 1840's that changes began. American educators who had visited Prussia came back enthused by the whole-word method used to teach reading there. The influence of Horace Mann was felt too. He promoted the idea of the whole-word method of teaching reading and thought that spelling should be taught as a separate subject to make it more interesting. New books were published which presented whole words first. After a few years it was found that although children taught by the whole word method did learn to read faster in the first three grades, they did not read nor spell well in the upper grades. Concurrently with this new method, conservative educators continued to use the alphabet method and taught reading and spelling together.

From about 1880 and until the First World War the method of teaching the alphabet and spelling as the initial step to reading began to lose favor. Reading and spelling became two separate subjects. More emphasis was placed upon silent reading and phonics training was delayed and relegated to a more subordinate role. So, as time passed the practice in schools was to give children lists of spelling words to memorize, however they choose to do it every week. By the 1920's spelling and reading instruction were entirely separated.

Then the issue became "which words to include in the spelling program lists. Research into the matter led to word frequency lists, such as, "The Thorndike Teacher's Word Book" (1921) and the "Horn List" (1926). In 1945 Rinsland analyzed children's writing by grade and developed a 3000 word list of words most frequently used by children. One of the problems with frequency lists of spelling words is that many irregularly spelled words are presented to

the beginning speller: once, many, etc. The child may learn to spell the irregular word but then is unable to use this skill to learn to spell other words. The frequency principle was the prime one during the 1930's, 1940's and 1950's when words were taught as independent unrelated items. The method was rooted in the work of Horn (1919), depended upon rote memory, and progressed through nine steps which included drill for recall of the visual image and practice in writing the word from memory. Believe it or not, these study steps are still in use today and are hardly changed. As recently as 1977 the NEA publication called Spelling: The Application of Research Findings (Allred, 1977) recommended these procedures as the best method for spelling instruction.

In the 1950's the influence of Leonard Bloom and other linguists produced a shift. What was examined was the fact that English is an alphabet based language with phonemes represented by graphemes. Therefore, a spelling program should start by teaching the most regular correspondences. The question arose too, as to whether the English spelling system was regular enough to use the alphabetic principle for setting rules. This question was debated even at the beginning of the 1900's and it continued to generate discussion and research through the 1960's. Yu (1966) called it the "generalization controversy."

This controversy had two sides. Its defenders stated that the orthography was regular enough to for generalizations to assist one in spelling related words. Its detractors argued that the irregularity of English orthography required that each word's spelling be learned individually. Horn was the foremost authority and advocate of the latter position.

Many studies conducted in the years since Horn's lent some support to his position that "the teaching of phonic generalizations, whether based on the most common spelling or on word patterns, should be limited to generalizations which

apply to a large number of words and have few exceptions...." (1960).

Studies on the efficacy of teaching spelling by the generalization approach yielded mixed conclusions. An interesting conclusion that emerged was that lower ability children benefitted the most from direct teaching with the generalization approach. The issues continue to be researched and debated.

Many other avenues of research too numerous to detail have been and are still being explored. Among these are (1) the modern linguistics analyses of the structure of English orthography, (2) systematic studies of commercial spelling programs (Cronnell, 1971), (3) the incidental-systematic controversy (Bennett, 1967), (4) systematic teaching of spelling (Peters, 1967), (5) the context v. list system (Hahn, 1960; Smith, 1975), (6) the test-study-test v. study-test (Schoephoerster, 1962; Blumberg and Black, 1975), (7) distributed v. massed learning approaches, (8) number of words to be studied per lesson, (9) methods of word study and more.

So what do children do and learn when they learn to spell? They learn about the structure of the language by relating the orthographic form of a word to (1) its phonological form - its sounds and pronunciation; (2) its syntactic and morphological form - its use in a sentence and the units of meaning in the word; (3) its semantic form - its meaning.

Spelling knowledge is a mixture of

(1) information about the relationship of the spelling and pronunciation patterns of a word and

(2) the rote knowledge specific to that word.

Children with spelling disabilities are unable to take advantage of helpful information, especially, perhaps of the phonology, so that the burden on their rote memory becomes too much.

As we know, Public Law 94-142 requires an IEP for each classified

handicapped child. It becomes important to decide upon how to establish the present level of spelling performance of the classified child. Suitable analysis of this should include the child's (1) readiness for formal spelling instruction, (2) general spelling level, (3) types of spelling errors, and (4) abilities to proofread, use phonics and use the dictionary.

Readiness includes intellectual capability, emotional willingness and motivation to learn to spell. To be ready to learn to spell a child should be able to (1) name and print all the letters of the alphabet, (2) copy words accurately, (3) write his/her name from memory, (4) enunciate words clearly, (5) recognize letter-sound combinations, (6) write a few words from memory, (7) show interest in learning to spell (Read, Allred and Baird, 1972).

To assess a child's general level of spelling any one of a number of standardized tests may be used: Phonovisual diagnostic test, Morrison-McCall Scale, Peabody Individual Achievement Test, the Dare, etc. Informal measures may be used too.

Analysis of errors made on tests reveal the types of errors: omission, substitutions, transpositions, reversals, phonetic. Standardized tests that analyze errors are few: The Spelling Errors Test (Spache, 1955) and the Larsen-Hammell Test of Written Spelling (1976).

There are standardized tests that measure proof reading skills: California Achievement Test (Tiegs and Clark, 1970), SRA Achievement Tests (Thorpe, Lefever and Haslund, 1963) and the Metropolitan Achievement Test (Durost, Evans, Leake, Bowman, Cosgrove and Reed, 1970). Informal measures may be used too and may include (1) selection of correct word from alternative list, (2) marking and correcting misspelled words in context.

Phonics skills are evaluated by noting ability to relate sound to symbol. Standardized tests that do this are the Gates-Russell Spelling Diagnostic Test and the Durrell Analysis of Reading Difficulty Spelling subtests.

Dictionary skills abilities and knowledge of spelling rules are evaluated informally.

After such analyses the development of a spelling program in a child's I.e.p. should be easier. Then the evaluation team can turn to the research and select the procedure(s) best suited to that particular child.

The research supports a number of procedures:

1. Using the test-study-test method (Blauchard, 1944; Fitzgerald, 1953; Yu, 1969).
2. Learning by a synthetic approach (T. Horn, 1947, 1969; Humphy, 1954).
3. Presenting the words in a list or column form (M. Edwards, 1953).
4. Correcting of his/her work by the child under the teacher's direction (Christine and Hollingsworth, 1966; Schoephoerster, 1962).
5. Using spelling games to stimulate student interest (E. Horn, 1960).
6. Allotting 60-75 minutes weekly to spelling instruction (Ruth, Axelrod, Anderson, Hathaway, Wood and Fitzgerald, 1972).

Test-Study Method

1. Pretest to determine which words are not known by testee (pronounce word, put in sentence, repeat word).
2. Identify unknown words for child to study - put into list.
3. Repeat pretest. Check errors again and incorporate into future lessons.
4. Present words in list/column form for study (focus on specific word).
5. Develop efficient, systematic technique for study - individualized.

Self-Correcting Technique

1. Correct immediately after taking test (under teacher's direction).
2. Let child see which words are difficult.
3. Let child locate part of word that is problem.
4. Let child correct errors.

The current practice of presenting all the spelling words on Monday is unsuitable for learning disabled children. It is better for these children to learn a few words daily and to be tested on a few words at a time. In each test (Neef, Iwata and Page, 1977) the teacher should include known and unknown words. Periodically throughout the school year newly learned words should be retested. This procedure facilitates and enhances spelling maintenance and progress.

FITZGERALD METHOD (AUTOMATIC)

1. Look at the word carefully.
2. Say the word.
3. With eyes closed, visualize the word.
4. Cover the word; write it.
5. Check the spelling.
6. If misspelled, repeat steps 1-5.

GILSTRAP METHOD (BICYCLE)

1. Look at the word and say it softly. If it has more than one part, say it again, part by part, looking at each part as you say it.
2. Look at the letters and say each one. If the word has more than one part, say the letters part by part.
3. Write the word without looking

HORN METHOD ONE (AIRBOAT)

1. Look at the word and say it to yourself.
2. Close your eyes and visualize the word.
3. Check to see if you are right. If not, repeat steps 1 and 2.
4. Cover the word; write it.
5. Check to see if you are right. If not, go back to step one.
6. Repeat steps 4 and 5, two more times.

HORN METHOD TWO (CONCERT)

1. Pronounce each word carefully.
2. Look carefully at each part of the word as you pronounce it.
3. Say the letters in sequence.
4. Attempt to recall how the word looks, then spell the word.
5. Check this attempt to recall.
6. Write the word.
7. Check the spelling.
8. Repeat the above steps if necessary.

VISUAL VOCAL METHOD (HAPPILY)

1. Say word.
2. Spell word orally.
3. Say word again.
4. Spell word from memory four times correctly.

FERNALD METHOD MODIFIED (METHOD)

1. Make a model of the word with a crayon, grease pencil, or magic marker saying the word as you write it.
2. Check the accuracy of the model.
3. Trace over the model with your index finger, saying the word at the same time.
4. Repeat step 3 five times.
5. Copy the word three times correctly.
6. Copy the word three times from memory correctly.

COVER AND WRITE METHOD (GARDEN)

1. Look at word. Say it.
2. Write word two times.
3. Cover and write one time.

4. Check work.
5. Write word two times.
6. Cover and write one time.
7. Check work.
8. Write word three times.
9. Cover and write one time.
10. Check work.

CALVIN EDLUND'S BEHAVIOR MODIFICATION PROGRAM, GRADES 7-12

SPELLING FOR WORK

(Academic Therapy Publications, 1979)

1. Respondent Conditioning
2. Baselining
3. Spelling Training
4. Phonetic Spelling
5. Reinforcement Program

Positive attitudes in the child are important for spelling improvement. These attitudes are tied in with motivation and interest. The teacher needs to promote positive attitudes. Here are some suggestions:

1. Show importance of correct spelling in practical/social situations
2. Provide efficient individualized study method
3. Use words needed
4. Encourage pride in accuracy
5. Require study of unknown words only
6. Dramatize success/progress (charts, graphs, praise)
7. Let student maintain progress records
8. Build in rewards for good results
9. Use material incentives, if needed
10. Use games or other such means as supplements

Other conditions a teacher may consider with the learning disabled are:

1. Time allottments - weekly 60-75 minutes
2. Peer tutors
3. Parent involvement
4. Use of spelling in context (language arts program)

One intent of this presentation was to provide teachers of the learning disabled with background and historical knowledge of how spelling was and is taught. Another intent was to share the results of the research on teaching spelling and to enumerate the techniques found to be most effective. A third was to share procedures of some successful techniques and other ideas. There is the hope that teachers may try these suggestions with their learning disabled children.

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